



A family left homeless by the bushfires that swept through the Royal National Park area, NSW, in mid-November 1951.

MAGAZINE PROMOTIONS

CHAPTER 46

DISASTERS

STUART PIGGIN

IN ITS DISASTER experience Australia is relatively speaking the 'lucky country'. Even New Zealand has suffered more horrifying civil disasters than Australia. Australian air disasters have been few with little loss of life and all pale into insignificance by comparison with the Mt Erebus disaster of 28 November 1979 when an Air New Zealand DC10 crashed, killing 257 people. Australia's worst rail disaster at Granville on 18 January 1977 took 83 lives, but is eclipsed by the New Zealand Tangiwai ('weeping waters') crash of Christmas Eve 1953 when 151 died.

To date the worst civil disaster in Australia's history was the foundering of the emigrant ship *Cataraqui* on King Island, 4 August 1845, with the loss of over four hundred lives. The worst natural disaster was on 4–5 March 1899 when a cyclone struck a pearling fleet in Bathurst Bay, Queensland, killing 307 people. On 19 February 1942, 243 people died when Darwin was bombed (Lockwood, 1966). Wars are not usually classified as 'disasters', but here again relatively few have died on Australian soil through enemy action. Many died, however, in attacks on shipping in World War II (Loney, 1981); the sinking of HMAS *Sydney* off the coast of Western Australia on 19 November 1941, with the loss of 645 lives, was Australia's worst disaster. The worst peacetime land disaster in Australian history was the Mt Kembla mine disaster of 31 July 1902 when 96 died. It is feared that Australia's relative immunity to disasters could change with the increasing population of northern Australia which is particularly prone to cyclones.

If, however, Australian disasters have been accompanied by a comparatively low loss of life, this has been offset by a high economic cost, owing to our vast distances and the high frequency of cyclones, bushfires and floods. The 1974 Brisbane floods, for example, took five lives but caused damage estimated at \$178 million; in the same year Cyclone Tracy took 65 lives and damage was estimated at over \$500 million. In view of the high economic cost of Australian disasters it is perhaps surprising that so little research has been done by economists; one explanation is that there are few reliable estimates of damage from disasters.

Historians too have been reluctant to write about Australian disasters. Still the most accessible historical information on peacetime disasters is found in the several editions of the *Australian encyclopaedia* where details are arranged according to the field or activity in which disasters occurred, such as aviation disasters, mining disasters, wrecks and shipping disasters or fires. Natural disasters are treated under bushfires, floods and storms. Among historians, Geoffrey Blainey's *The peaks of Lyell* (MUP, 1978) makes a study of a disaster in the context of a company history, while Bell (1978) and Piggin (1981) are the only historians who have concentrated on disaster research.

Most research on Australian disasters is being done by behavioural and physical scientists. This follows in the wake of the great surge of research in New South Wales facilitated by the Federal Disaster Act (1950) which established disaster research centres to investigate the possible behaviour of groups of people subjected to nuclear attack. Social scientists such as Wettenhall (1975) are optimistic about the predictive value of the study of human behaviour during stress situations in general and disasters in particular. The research of physical scientists, including physicists, geologists and meteorologists, concentrates on technical rather than human aspect of disasters and is, therefore, generally omitted in the bibliography below.

Disasters lend themselves to sensationalist treatment by journalists (for example, Carroll, 1977) but some journalists have made careful and responsible investigations of Australian disasters. This genre, therefore, cannot be ignored (see Holthouse, 1974) and should be sought not only in popular monographs, but also in the magazine or historical features in newspapers.

Immediately after a disaster media coverage is especially copious, since disasters capture headlines, increase newspaper circulation and raise television ratings. For much of the nineteenth century, in the absence of statutory data collection, newspapers are almost our only source of information about some disasters, especially maritime disasters. The newspaper cuttings files in major libraries should therefore be consulted (for example, in the Mitchell Library under 'Shipwrecks and disasters at sea'). Intense media interest in disasters has created extensive photographic and film material on more recent Australian disasters. For instance, 229 films on related subjects are listed in the *New South Wales State Emergency Services visual aids catalogue*, March 1976.

Reports of royal commissions and other public inquiries are perhaps the most important source of data on Australian disasters, and some of the more significant are included in the bibliography. The *Checklist of royal commissions* compiled by Borchardt *et al* (see chapter 8 above) should be consulted for complete coverage. Royal commissions deal frequently with civil disasters, although there have been important inquiries into the causes and effects of floods and bushfires and the relief activities undertaken by various authorities. They usually make recommendations for change and thereby raise the tantalising historical question of the relationship between disasters and progress.

In the search for primary sources, those interested in disasters must take into account the fact that a large number of agencies and organisations are involved in disaster work. There are the departments and statutory authorities of the three tiers of government (federal, state and local) and all have extensive archival collections. No two states have uniform legislation on disaster preparedness and relief, and the student of disasters may have to be familiar with the operating and recording instructions of the police, fire, ambulance, health and emergency services in each state. Since the creation in 1974 of the Australian National Disaster Organisation within the Department of Defence, the defence forces have become more involved with disaster relief. There are also philanthropic, religious and voluntary organisations involved in disaster work, including the Royal Humane Society, the Red Cross and the Salvation Army.

The historical study of Australian disasters has hardly begun. The sources are rich and social scientists offer useful guidelines. Oral history is more fruitful here than in many other areas since disaster memories are particularly vivid. Descriptions of major Australian disasters are given in *Australians: events and places*.

The bibliography below is divided into three parts dealing respectively with international and Australian disasters, natural disasters, and civil disasters. The citations within each are arranged alphabetically by author.



GENERAL READING

AUSTRALIAN COUNTER DISASTER COLLEGE. *Australian disaster research directory (including some contributions from New Zealand)*. Macedon, Vic, Australian Counter Disaster College, 1983-

Lists 50 Australian and New Zealand tertiary institutions and other organisations, describing the nature of the research, personnel and publications. Regular updates planned.

CARROLL, B. *Disaster, horror and fear in Australia*. Sydney, Bacchus Books, 1977. 201 p.

Account of 69 Australian disasters (replete with rape, murder and epidemics) rushed out after the Granville NSW rail disaster. Written in sensational journalese. Inaccuracies abound.

FERRARA, G.M. ed, *The disaster file: the 1970's*. New York, Facts on File, 1979. 173 p, illus.

Australian drought, fire, storm and railroad disasters are included in this catalogue with description of each event, including a statement of cause, date and numbers killed and injured.

FRASER, B. ed, *The Macquarie book of events*. Sydney, Macquarie Library, 1983. 608 p, illus.

Helpful, though far from complete, lists of Australian disasters arranged chronologically covering droughts, cyclones, storms and floods, fires, shipping, rail and air disasters.

HEATHCOTE, R.L. AND THOM, B.G. eds, *Natural hazards in Australia: proceedings of a symposium ...* Canberra, Australian Academy of Science, 1979. 531 p, illus, maps.

Important contributions by social and physical scientists and other professionals. Many of the papers have a remarkable historical perspective. Bibliographies.

KINGSTON, J. AND LAMBERT, D. *Catastrophe and crisis*. London, Aldus Books, 1979. 336 p, illus, maps.

Surveys natural and 'economic' disasters, plagues, wars, murders, exterminations and 'scientific' disasters. Australian bushfires and droughts are mentioned, as is the collapse of Poseidon shares in 1970.

NASH, J.R. *Darkest hours: a narrative encyclopedia of worldwide disasters from ancient times to the present*. Chicago, Nelson-Hall, 1976. 812 p, illus.

Particularly useful single-volume study of world disasters that have taken more than forty lives. Brief articles on disasters arranged alphabetically by location are followed by lists arranged chronologically by type (for example, air, earthquake, mine and war).

OLIVER, J. ed, *Response to disaster*. Townsville, Qld, Centre for Disaster Studies, James Cook University of North Qld, 1980. 355 p, illus, maps.

Seminar papers covering definitions, classification, regional variations in disaster potential, disaster preparedness, post-disaster care and the development of the Centre for Disaster Studies at James Cook University.

POWNALL, E. *Elements of danger*. Sydney, Collins, 1976. 152 p, illus.

A popular account of twelve Australian disasters and accidents culled from newspapers, reports and inquiries.

TASMANIA. State Emergency Service. *Chronological sequence of events: Tasmania 1811-1980*. Hobart, State Emergency Service, 1980.

These tables, the accuracy of which is not guaranteed, are compiled from official records, newspapers, media records and almanacs.

NATURAL DISASTERS

AUSTRALIA. Natural Disasters Organisation. *Darwin disaster, Cyclone Tracy: report by Director-General, [Alan Street-*

ton], Natural Disasters Organisation on the Darwin relief operations, 25 December 1974-3 January 1975. AGPS, 1975. 68 p, maps.

This controversial report gives an account of every phase of the disaster from original warnings, through relief operations to early rebuilding planning.

BURTON, I. et al, *The environment as hazard*. New York, OUP, 1978. 240 p, illus.

This study contains many references to Australian droughts and their impact on the Australian economy, landuse and attitudes to rural life over a period of 66 years.

BUTLER, J.R.G. AND DOESSEL, D.P. *The economics of natural disaster relief in Australia*. Canberra, Centre for Research on Federal Financial Relations, Australian National University, 1979. 147 p.

Based on an analysis of property damage in the Brisbane flood (1974), this study recommends that victims should bear only a specified maximum cost positively related to income.

CHAMBERLAIN, E.R. et al, *The experience of Cyclone Tracy*. AGPS, 1981. 191 p.

Report by staff from the Anthropology and Sociology and Social Work departments of the University of Qld, this is a study of the stress caused by the cyclone.

CHAMBERLAIN, E.R. et al, *Queensland flood report: Australia Day 1974*. AGPS, 1981. 324 p.

A study of the welfare component in disaster relief, to identify social and psychological needs, and to design a blueprint for the provision of post-impact relief services.

COLE, E.K. *Winds of fury: the full true story of the great Darwin disaster*. Adelaide, Rigby, 1977. 211 p, illus, map.

A well-presented account by an Anglican clergyman, who also reflects on 'the tragedy and triumph of Tracy', expected of a clergyman, perhaps, but rare in Australian disaster studies.

FOLEY, J.C. *Droughts in Australia: review of records from earliest years of settlement to 1955*. Melbourne, Bureau of Meteorology, 1957. (Australia. Bureau of Meteorology bulletin, 43.)

An analysis of the duration, intensity and effects of all Australian droughts for which records are available. Data include information of interest to social historians. Bibliography.

FOSTER, E. *Bushfire: history, prevention, and control*. Sydney, Reed, 1976. 247 p, illus.

Opening with a history of bushfires and concluding with a list of serious fires in Australia since 1830, this book reviews methods of control.

HOLTHOUSE, H. *Cyclone*. Adelaide, Rigby, 1977. 179 p, illus.

A journalist's account of a century of Australian cyclones with an appendix listing notable eastern Australian cyclones. First published in 1971.

LOVETT, J.V. ed, *The environmental, economic and social significance of drought*. A & R, 1973. 318 p, illus, maps. Contributions by various research workers.

LUKE, R.H. AND McARTHUR, A.G. *Bushfires in Australia*. AGPS, 1978. 359 p, illus, maps.

Authoritative work which includes historical material and comments on methods of protection and the legislation and fire-fighting organisations in each Australian state. Extensive bibliography.

NOBLE, W.S. *Ordeal by fire: the week a state burned up*. Melbourne, Hawthorn, 1977. 85 p, illus, map.

A journalist's account of Victoria's worst bushfires of January 1939 which took 71 lives.

STRETTON, A.B. *The furious days: the relief of Darwin*. Sydney, Collins, 1976. 207 p, illus.

A personalised reconstruction of events following Cyclone Tracy when supreme control had to be exercised without legal authority to counteract the inertia of dazed victims and the bungling of bureaucrats and politicians.

STRETTON, A.B. *Soldier in a storm: an autobiography*. Sydney, Collins, 1978. 320 p.

Stretton received a lot of criticism from public servants and politicians for his controversial, dramatic and illegal actions following the Darwin cyclone disaster. This is his defence.

VICTORIA. Board of Inquiry into the Occurrence of Bush and Grass Fires in Victoria. *Report ...* Melbourne, Government Printer, 1977. 213 p, illus, maps. (Vic. Parliament. Parliamentary paper, 91 of 1977.)

The commissioners recommended reorganisation of the Country Fire Authority, new standards for the State Electricity Commission, and improved co-ordination between these bodies, the Country Roads Board, Victorian Railways and the municipalities. Chairman: Sir E.H.E. Barber.

WETTENHALL, R.L. *Bushfire disaster: an Australian community in crisis*. A & R, 1975. 320 p, illus, maps.

A social scientist's analysis of the 1967 Tasmanian bushfires within the context of disaster research and against the background of other Australian, especially Tasmanian, disasters.

CIVIL DISASTERS

BAGLEY, W.O. *Coroner's enquiry into the Sunshine railway disaster; being a digest of the evidence in relation to the Westinghouse brake tendered at the enquiry ... at the Law Courts, Melbourne*. Melbourne, Arbuckle, Waddell & Fawckner, 1909. 205 p, illus.

In 1908, 44 people died and over 400 were injured in a train collision at Sunshine, Vic. This digest of the evidence concentrates on the claim that failure of the brake caused the accident and concludes with an account of the trial and the reaction of the Victorian press to the engine driver's acquittal.

BATESON, C. AND LONEY, J.K. *Australian shipwrecks*. Sydney, Reed; Geelong, Vic, List Publishing, 1972-82. 3 vols, illus, maps.

Comprehensive chronological treatment of shipwrecks in Australian waters. Many entries are detailed, with a selection of the sources of information after each entry. A fourth volume is projected.

BELL, P. *The Mount Mulligan disaster*. Townsville, Qld, James Cook University of North Qld, 1978. 287 p, illus, maps. (Studies in north Qld history, 2.)

First monograph history of an Australian disaster, treating it as an integral part of mining history and as the 'logical' outcome of geographic, economic, social and political forces. The author is critical of the perfunctory royal commission.

HAWKES, V. *The Tasman Bridge disaster, community perception and response: survey report*. Hobart, Faculty of Education, University of Tas, 1975. 227 p, illus, map.

A sociological survey of the isolation of one-third of a city's population following the collapse of the bridge (5 January 1975).

LOCKWOOD, D. *Australia's Pearl Harbour: Darwin, 1942*. Melbourne, Cassell, 1966. 232 p, illus, maps.

A journalist's account of the bombing of Darwin. Examines the appointment of a royal commission to investigate all relevant circumstances.

LONEY, J.K. *Atlas of Australian shipwrecks*. Sydney, Reed, 1981. 120 p, illus, maps.

Brief descriptions of more than 500 wrecks in Australian waters arranged by states, including a chapter on war casualties.

NEW SOUTH WALES. Royal Commission on Bulli Colliery Accident. *Report, together with the minutes of evidence and appendices*. Sydney, Government Printer, 1887. (In NSW. Parliament. Parliamentary papers 1887 [second session], vol 4.)

The commissioners, demonstrably representative of the coal-owners, overturned the findings of the coroner's inquest and largely exonerated management and the Dept of Mines. The commission found that the explosion was caused by a miner who had used explosives carelessly. Chairman: J.R.M. Robertson.

NEW SOUTH WALES. Royal Commission on the Mount Kembla Colliery Disaster, 31 July 1902. *Report, together with minutes of evidence and exhibits*. Sydney, Government Printer, 1903. (In NSW. Parliament. Parliamentary papers 1903, vol 5.)

Following a coroner's inquest, the commission censured the manager, who was then put on trial, and recommended that every detection of gas should be reported and that naked lights should not be used in any mine where gas was detected. Chairman: G.E.R. Murray.

O'MAY, H. *Wrecks in Tasmanian waters 1797-1950*. Hobart, Government Printer, 1955. 209 p, illus, map.

Brief descriptions of about 600 shipwrecks.

PIGGIN, S. 'Religion and disaster: popular religious attitudes to disaster and death with special reference to the Mt Kembla and Appin coal mine disasters', *J Aust stud* 8, 1981, 54-63.

An analysis of the nature and significance of religious behaviour before, during and after two mine disasters (1902 and 1979) in a southern coal district of NSW.

QUEENSLAND. Royal Commission ... upon the Recent Disaster at Mount Mulligan Coal Mine. *Report ... with the proceedings ... minutes of evidence and exhibits*. Brisbane, Government Printer, 1921. xvii, 176 p, illus, maps. (In Qld. Parliament. Parliamentary papers 1922, vol 2.)

The commission failed to determine satisfactorily the cause of the explosion, but led witnesses to preconceived conclusions. The report criticised the mine manager and the neglect of several provisions of the Mines Regulations Acts (1910-20). Chairman: R.A. Dunlop.

TASMANIA. Royal Commission of the North Mount Lyell Mining Disaster. *Report ...* Hobart, Government Printer, 1913. 9 p. (Tas. Parliament. House of Assembly. Parliamentary paper, 2 of 1913.)

The commission considered three causes: carelessness by the miners, incendiarism and an electrical fault. It eliminated the last, but was unable to find conclusively on the others. Chairman: E.W. Turner.

THOMAS, P. *Miners in the 1970s: a narrative history of the Miners Federation*. Sydney, Miners Federation, 1983. 552 p, illus, map.

A chapter entitled 'Mining's bitter toll' contains accounts of the disasters of Box Flat, 1972, Kianga, 1975 and Appin, 1979. It claims that Australian mines are more dangerous than British and Japanese mines, and emphasises the greater hazards due to improved technology.

VICTORIA. Royal Commission into the Failure of West Gate Bridge. *Report ...* Melbourne, Government Printer, 1971. 143 p, illus. (Vic. Parliament. Parliamentary paper, 2 of 1971.)

The commission found that a bridge span collapsed when an attempt was made to straighten out a buckle and that neither the contractors nor the consulting and civil engineers had given sufficient attention to the design structure. Chairman: L. Matheson.